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National Wetlands Inventory Products

National Wetlands Inventory Program

Marshes, swamps, ponds, and bogs are teeming biological nurseries for migratory birds, fish, and aquatic plants. They also provide natural flood and erosion control. These predominantly wet areas, or wetlands as they are commonly called, now represent only about 5 percent of the land surface of the lower 48 States. Out of 221 million acres of wetlands that once existed in the conterminous United States, the U.S. Fish and Wildlife Service (FWS) estimates that only about 103.3 million acres remain.

Each year, development, drainage, and agriculture eliminate another 290,000 acres—an area a little less than half the size of Rhode Island. From the 1950's to the 1970's, conversion of wetlands to farmland caused 87 percent of all wetland losses.

The FWS has long recognized the importance of America's wetlands because they form breeding and wintering grounds for great numbers of migratory birds. In 1977, the FWS began the National Wetlands Inventory (NWI), a systematic effort to classify and map America's remaining wetlands.

Classification Scheme

The NWI defines wetlands according to the "Classification of Wetlands and Deepwater Habitats of the United States," a system that describes wetlands by soils, hydrology, and vegetation.

According to this system, wetlands are defined as lands transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface or the land is covered by shallow water. For this classification, wetlands must have one or more of the following three attributes: (l) at least periodically, the land supports mainly hydrophytes (aquatic plants), (2) the substrate is mainly undrained hydric (moist) soil, and (3) the substrate is saturated with water or

Florida Everglades

covered by shallow water at some time during the growing season each year. Because plants and soils furnish a record of the hydrology of a site, they form the basis of the hierarchical classification scheme that divides wetlands into five major systems: marine, estuarine, riverine, lacustrine (lakes), and palustrine (marshes).

Working with the classification guide and color-infrared aerial photographs, biologists were able to map wetlands as small as one-tenth of an acre. The aerial photographs used to make the NWI were acquired principally by the National High Altitude Photography Program, a consortium of Federal agencies that use the detailed information available from the photographs. The FWS also used NASA high-altitude and National Aerial Photography Program medium-altitude color-infrared aerial photographs. Biologists then verified the information by field-checking the data.

Map Coverage

Wetland maps exist for about 89 percent of the conterminous United States, 31 percent of Alaska, and all of Hawaii. The wetlands given the highest mapping priority are parts of the coastal zone; flood plains of major rivers; the Midwest "prairie pothole" region, an area that is a major breeding ground for ducks; and the lower Mississippi alluvial plain. Work has been completed in 38 States and continues in 12 other States. Work has also been completed in some territories.

Applications

More than 50,000 maps produced to date by the NWI are used in a variety of ways, including land use planning and guides, town planning, wildlife habitat management, water quality planning, project studies, soil and water conservation loans, zoning, flood hazard planning, research, waste treatment, permit reviews, and flood controls.

Map Specifications

The NWI produces two types of maps: composite maps that photographically combine the wetlands inventory information with standard U.S. Geological Survey (USGS) topographic map information, and overlays to these maps that contain wetland information only. Both types are available on a paper base that resembles a

blueprint in appearance or as transparencies on frosted mylar film. The wetlands inventory transparencies can be laid on top of USGS 7.5-minute, 15-minute, and 30- by 60-minute topographic maps that served as base maps for the overlays. Both the composites and the overlays display the locations, shapes, and characteristics of wetlands. Maps copied on mylar and paper are not suitable for digitizing or scanning.

Ordering Information

For information on how to order NWI overlays and composites, contact any Earth Science Information Center (ESIC), or call 1-888-ASK-USGS.

Copies of the "Classification of Wetlands and Deepwater Habitats of the United States," stock number 024-010-00665-0, can be purchased for $7.50 per copy from:

Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
Telephone: 202-512-1800
Fax: 202-512-2250

The book can be purchased through the mail by check or money order only, made payable to “Superintendent of Documents." Credit card orders are accepted by telephone and fax.

The publication is also available on the World Wide Web at http://www.nwi.fws.gov/classman.html.

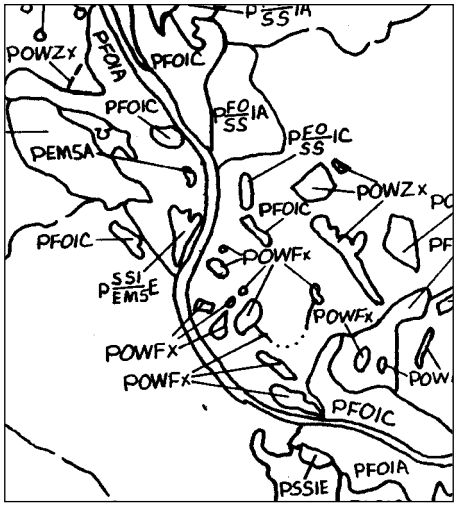
Additional Information

For general information about wetlands legislation and protection efforts, call the Environmental Protection Agency hotline at 1-800-832-7828.

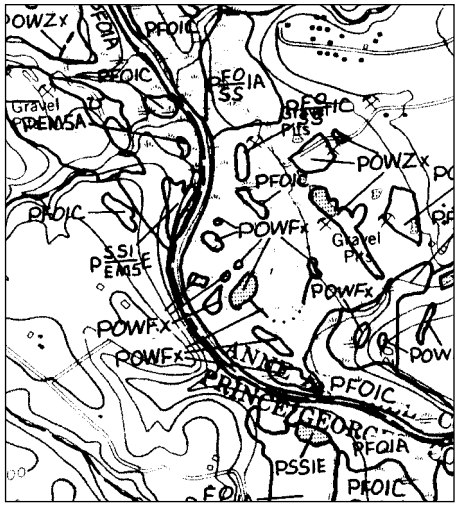
For information about permits and wetlands regulations in your area, contact the regulatory branch of your local Army Corps of Engineers.

The NWI digital data are available free of charge through the Internet, anonymous ftp to 192.189.43.33. The NWI’s World Wide Web server can be accessed at http://www.nwi.fws.gov/.

For information about the NWI, call or write one of the following FWS regional wetlands coordinators for your geographic area:



Wetland overlay map



Wetland composite map

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For information on other USGS products and services, call 1-888-ASK-USGS, use the EARTHFAX fax-on-demand system, which is available 24 hours a day at 703-648-4888, or visit the general interest publications Web site on mapping, geography, and related topics at http://mapping.usgs.gov/www/products/mappubs.html.

Please visit the USGS home page at http://www.usgs.gov/.